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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, KIET TUAN

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/559,345

Applicant(s)

Murakoshi et al.

Examiner

K. NGUYEN

Group Art Unit

2881

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 10-21-02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1, 5, 9-20 and 21-23 is/are pending in the application.
- ☐ Of the above claim(s) 9-20 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1, 5 and 21-23 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All ☐ Some\* ☐ None ☐ of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_  
received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_ Interview Summary, PTO-413  
Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152  
Notice of Draftsperson's Patent Drawing Review, PTO-948 Other \_\_\_\_\_

Office Action Summary

***Rejection Under 35 U.S.C. 112, First Paragraph***

Claims 1, 5 and 21-23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification is completely silent for reciting the limitation "indium monoiodide (InI)" as recited in claims 1 and 21-23. However, the specification only disclose the term "indium iodide (InI)" in line 24 of page 14 and line 18 of page 18. Additional explanations for different between the "indium monoiodide (InI)" and "indium iodide (InI)" are needed if applicant insists on including these features in the claims 1 and 21-23 without the insertion of new matter.

Clarification without the introduction of new matter is required.

***Rejection Under 35 U.S.C. 102(b)***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Isaka (3-13576).

Claims 1, 5 and 21, as the best understood by the meaning of 35 U.S.C. 112, first paragraph above, are rejected as: Isaka (3-13576) discloses, in fig. 1, an apparatus and/or method

for generating and irradiating ions. The apparatus includes a heater 2 for heating indium iodide (InI) 3 contained in a vessel 4 of a cylinder 1; and a filament 51 in a discharge chamber 5 for discharging a gasified indium iodide to producing indium and iodine ions. The InI is heated at the temperature of not lower than 300 °C and not higher than 500 °C to vaporize the InI. The vaporized InI is discharged by the filament 51 to generate indium (In) ions. The indium ions can be used as the ion source of an ion implantation device for implanting the indium (In) ions onto a substrate. The discharge chamber 5 has two gas inlets for an inert gas 54 and the vaporized InI a.

***Rejection Under 35 U.S.C. 103(a)***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isaka (3-13576).

Isaka (3-13576) discloses all the features as discussed above except the chamber having the filament provided on one side surface and a reflector counter electrode provided on a second side surface opposite to the one side surface as recited in claim 22; and the chamber having the two gas inlets provided on the same side surface for introducing the inert gas and vapor into the chamber in one direction as recited in claim 23.

Using the chamber having the filament provided on one side surface and a reflector counter electrode provided on a second side surface opposite to the one side surface, or the chamber having the two gas inlets provided on the same side surface for introducing the inert gas and vapor into the chamber in one direction is considered to be obvious variation in design, since the chamber having the filament provided on one side surface and a reflector counter electrode provided on a second side surface opposite to the one side surface is well known in the art and in the ion source, or the chamber having the two gas inlets provided on the same side surface for introducing the inert gas and vapor into the chamber in one direction has the same results with the chamber having the two gas inlets provided on the different side surfaces as disclosed in the Isaka (3-13576) apparatus and/or method for generating and irradiating ions, thus would have been obvious to one skilled in the art to use the chamber having the filament provided on one side surface and a reflector counter electrode provided on a second side surface opposite to the one side surface, or the chamber having the two gas inlets provided on the same side surface for

introducing the inert gas and vapor into the chamber in one direction in the Isaka (3-13576)

apparatus and/or method for generating and irradiating ions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner *Kiet T. Nguyen* whose telephone number is (703) 308-4855.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7723.

***K.T.N/Primary***

November 23, 2002

*Kiet*